N
135 oil field which was discovered near Yümen in northwest Kansu during the latter part of the last war. Though several wells N had been drilled and a small refinery plant established, oil [315] production was never large due to shipping and transportation [489] difficulties. (It might be noted that construction of the Kansu- [499] Sinkiang Railway has been completed up to Yümen in July 1956. Tank cars may now replace trucks in the transportation of Yümen oil.) Despite these adverse factors, the Peking Government's planned economy gives top priority to the development of the known and the search for the unknown mineral wealth of China's Northwest.

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315 Thirteen construction projects were completed in the Yümen Oil Field, China's biggest oil center, in the spring of 1955. A number of these projects now enable Yümen to produce N eighteen percent more heavy lubricating oil and fifteen percent • 316 more kerosene. (NCNA April 22, 1955). A large coal field was discovered in Kansu in April, 1955. It is reported the new discovery with a total of approximately thirty-two million metric tons is four times as large as the A-kan-chen colliery of Kao-lan (Lanchou) county, one of the major coal mines in the province.

S Work has been started by three oil prospecting teams sent N to Sinkiang and Chinhai provinces by the Northwest Geology 315 Bureau under the Ministry of Geology. The prospectors are [654] operating in Turfan and Dzungaria Basins, Sinkiang and in Tsaidam, Chinahai, to locate oil-bearing structures, oil shales, heavy feldspar and other minerals. (NCNA April 19, 1955). One of the plans for 1955 was to complete the prospecting of several oil-bearing structures in the Turfan Basin and obtain the data to design a modern shaft mine in the Urumchi coal field (American Consul General, SCMP, June 1-30, 1955). In addition, rich coal deposits have been discovered in North Sinkiang, particularly in the Ili Valley.

According to 1955 reports, new oil fields were discovered and drilled, e.g., at Tu-shan-tzu, south of Wu-su, and new S coal fields were discovered in Sinkiang. Up to now, eight coal N fields are being worked along the foothills of Tien-shan in 316 Sinkiang, which form one of the largest coal fields in China, ranking third among all the provinces. In coal reserve, Sinkiang is next only to Shansi and Shensi. The present doal reserves of Sinkiang are estimated at 35,040 million metric tons and can last for three hundred years at the present daily output rate of 320,000 tons.

Iron ore and ferro-metals like tungsten, manganese, molybdenum and nickel, as well as some non-ferrous minerals, like gold, platinum, copper, lead and zinc, and aluminum have been discovered and some even worked, especially in the province of

S N 316 [648] Sinkiang. The discovery of uranium and some other fissionable materials has been reported there. While rumors that Sinkiang is being built up into an ataomic arsenal for Russia remain to be confirmed, nevertheless it seems to be of particular strategic importance in the building up of a joint Sino-Soviet Inner Asian fortress.

S N 315 [648] Under a previous Sin-Soviet agreement concluded in 1937, the U.S.S.R. carried out prospecting and drilling in regard to petroleum exploitation. Fields were discovered in several localities, and a refinery was built at the Wu-su field, which, completed in 1940, had a daily capacity of a thousand barrels. This refinery was closed, however, in 1943. The largest field discovered to date, some forty miles in length, is located at An-chi-hai. No estimate of reserves is available at present, but on the basis of known fields and producing wells, Sinkiang has China's most extensive and abundant reserves, far outstripping those of Shensi, Kansu and Szechwan. Moreover, the oil from Sinkiang bores is reportedly of better quality than that found in other provinces in the Northwest.

S 315 316 648 Before the Sino-Soviet Agreement of Moscow on March 27, 1950, the mineral exploitation of Sinkiang was carried out sporadically and on a very small scale, with inefficient local mining methods predominating. Under the terms of the 1950 Moscow Agreements, a joint Sino-Russian petroleum company was formed with Russian-supplied technicians and equipment to undertake prospecting, surveying, working, and refining or petroleum and gas. Two other similar corporations were also organized to explore and exploit the non-ferrous and rare metals. By agreement the products of the corporation were to be divided equally between China and the U.S.S.R., as well as running expenses and profits. Leadership of the corporations was to be assumed by representatives of the two contracting parties in rotation for periods of three years and the corporations were to be staffed by an equal number of citizens from each of the two countries. The agreements were supposed to be valid for thirty years. (China Weekly Review, July 1, 1950, p. 82). It has been reported that all three Sino-Soviet joint corporations have been transferred to Chinese ownership, although with Russian advisers, since the beginning of 1955. At the same time, the Peking Government, together with Sinkiang authorities, sent out three large survey teams to search for new mineral deposits.

N 135 Northwest China has a great variety of minerals, only a few of which have been even partially developed. In addition to the rich oil fields of both Kansu, Sinkiang, and possibly Shensi, and the abundant coal deposits of these three provinces, other recently discovered minerals are as follows: rich copper deposits

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316 Sinkiang. One lies near Urumchi, the capital of Sinkiang and the other is in the Kuldja area in the Ili river basin. Data are collected for designing a modern coal mine in the Urumchi coal field where large deposits of good steam coal have been proved to exist. The two coal fields will in time supply fuel for the Lanchou-Urumchi-Alma Ata Railway Line which is now under rapid construction.

Coal Mining and Its Production:

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• 316 While the Northwest leads in coal reserve among the major geographical and administrative areas, its production is still small compared to the Northeast and North China. This has been mainly due to the difficulty in transportation and backward mining techniques. At present, the only mining of importance takes place in Tung-kuan near Sian in Shensi, at A-kan-chen near Lanchow in Kansu and ad Urumchi in Sinkiang. They are close to the populous administrative centers of the three provinces. The coal mine at Tung-kuan is connected by a sixty mile long sideline of the Lung-hai Railway at Hsien-yang which is close to Sian, the capital of Shensi. A number of
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[655] the small mines in Tung-kuan are still privately owned. But since 1954, the Government has taken over control of production and sale of ninety-five percent of the coal production in these
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[466] mines. The villagers were conscripted to transport the coal by mule coolie carrier and ox cart (TKT, June 17, 1954). In addition, primitive coal mines for local use are also found at Pai-shui, Pu-cheng, and Lung-hsien.

The chief coal mine worked in Kansu is in A-kan-chen, near Lanchow, where primitive methods are still used. There are other coal mines in Liang-tang, Wu-tu, Min-hsien, Tien-shui, and Cheng-hsien. Small coal mines are also located along the eastern foothills of the Ho-lan-shan Range between the districts of Chung-wei and Teng-kou in former Ninghsia province. Production will be increased when adequate machinery is supplied.

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316 Coal mining in Sinkiang is also carried on mainly by primitive methods which are crude and cumbersome. Up to the present the coal mined has only been used locally. Because of the primitive nature of mining, many accidents occur and the fatality rate is high.

The major coal producing areas are at Ta-cheng and Tihua and Hami on both sides of the Tien-shan mountains. Considerable coal mining is done on a small scale for local consumption as fuel, but extensive development of coal reserves must await the completion of the Kansu-Sinkiang Railway. At present, eight coal fields are being worked near Tihua (1955-56), which extend to about fifty kilometers, having thirty seams. In addition to Urumchi, coal deposits are apparently also being

N 135 and Liu-pa followed by Lüeh-yang, Tsu-nan, Chenan and Hsihsiang, where primitive mining has been carried on by native methods. The N 316 total annual production is less than 2,000 tons.
[433]

In Kansu, iron ore is mined in the districts of Liang-tang, Hui-hsien, Cheng-hsien, Hsi-ku, Yung-tang, Tien-shui, and N [433] Wen-hsien. The total output is about 25,000 tons, while the total reserve of Kansu is said to amount to 12,600,000 metric tons.

Iron ore deposits have been reported in Chinghai, but no further data are available.

S In Sinkiang, iron deposits are distributed both in the northern 135 and southern parts of the province. The largest vein is the ore which occurs at Ali in Kucha with a reserve of nearly three million metric tons and a content of thirty percent. It is specularite ore. There is another specularite ore deposit in the hills west of Urumchi. It has a reserve of 750,000 metric tons with a content of twenty-five to forty percent. Other iron ore deposits are found at Pai-cheng, Chang-chi, Fu-yüan, and Ta-cheng. However, the vein of Khara Balgasun mountain near Turfan is historically the best known to the Chinese. The S 316 iron mines at Kizil near Yarkand are also of high quality. Extensive iron beds are also repovted at Yengi Hissar and in the Ili valley. At present, iron ore is mined mainly in Kashgar. Before World War II, there were some four or five smelting furnaces in operation with a yearly production of 150 tons or iron. Now, according to 1955 reports, in Urumchi a steel factory is S 327 producing agricultural implements, etc. There is a factory [398] for repairing automobiles, and one for producing machine [392] tools. They are modest, but this does not mean that other factories, about which the press is silent, do not exist.

N With regard to the distribution of iron ore in Sinkiang and 135 the northwest as a whole, the following two tables may be found useful. (See Tables V and VI.) I A

b. Ferro alloys:

Tungsten, molybdenum, and nickel have been reported in the province of Sinkiang, and manganese in Kansu. With regard to their distribution and reserves very little information is available. Tungsten is produced at Chi-ka-tai, Ho-ssu-tai and Chu-li-kun, north of Wen-chuan-hsien in Sinkiang. A reserve of 8,600 metric tons is estimated for the three deposits; mechanized mining with Soviet equipment has started. Molybdenum is produced at Na-lu-kou and Pa-tu-lu-kou in Ching-ho-hsien. A total reserve of 2,000 metric tons for the former and 7,000 tons for the latter are estimated. The ore is reported to have a content of sixty-five percent WO_3. Manganese ore is found at Hsi-wan of Kan-ku Hsien and Shan-lan-men-shih of Yung-teng-hsien in Kansu. The former has a reserve of 200,000 metric tons with a content of 41.47 percent MnO_2 and the latter 1. [See p. 131--Analyst]

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135 has a reserve of 700,000 metric tons. Pozdneev, D. M., mentions that nickel exists in Sinkiang in his Ocherki Stran Dal'nego Vostoka (Essays on Far Eastern Countries), pp. 164-66, but no further data are available.

3. Non-ferrous metals

Among the non-ferrous metals of northwest China Copper, gold, S platinum, silver, aluminum, lead and zinc are relatively 316 important. The air approach to the Koz-tokai mining area of [508] the Sinkiang Non-ferrous Metals Company is a vast snowbound area on the eastern side of the Altai Range on the Sino-Soviet S border. A smooth highway runs from the airfield to the mining [491] town. (Urumchi, Uighur, Feb. 1, 1955, 1150 GMT. -B. cited by FBIS, No. 25, Feb. 4, 1955).

S a. Copper:
N Rich copper deposits have been found in Shensi, Kansu, and 135 Sinkiang. In addition, bornite, presumed to be very rare in the Eastern Hemisphere, has been discovered in south Shensi province, leading to the belief that China may have additional rich bornite deposits. Sinkiang also has considerable copper ore deposits of high quality. It is the most important non-ferrous metal resource of the province. It is found in the Ili river valley, in the northern foothills of the Tien-shan and in the S Pamir Mountains, near Kashgar. The copper ore mined near N Kashgar is reported to have a content of thirty to forty percent 316 pure copper and the deposits spread over 600 square miles. The copper ore mined near Kashgar contains thirty-five percent iron and sulfur. That mined at K'ang-shan, Pai-cheng, Urumchi, I-ning, and Sui-ting is also notable. Since native methods are inefficient, some mines originally worked were forced to close, i.e., those near Urumchi, Kashgar and west of Ili. Many other local deposits are known. Before World War II the copper output in Sinkiang was 150 tons a year. In 1930 a state copper melting factory was put into operation in Kashgar which, in addition to processing copper ore, also minted copper coins. The following two tables indicate the distribution of copper mines of Sinkiang and the copper ore deposits of Northwest China in general (Tables VII and VIII.) 1/A

S b. Gold and Platinum:
135 Gold is particularly rich in Sinkiang. It is widely spread, stretching from the Altai on the north to the Kunlun-Altyntagh mountains in the far south.

The names of Altai and Altyn Tagh Mountains mean gold in the Mongolian language. Nuggets weighing as much as forty-four ounces have been found here. Pigeon-egg sized nuggets are also found. Platinum is reputed to exist in the Altai mountains too. Rich gold mines are found in the vicinity of Khotan, S 316 Karagaitash, Sorzhal, Keriya (Yü-tien) Cherchen, Yarkand,

1/A [See p. 182-- Analyst]

S 316 and Karashar. Both placer and lode or vein gold are mined. Placer gold is mined in the Ili River, the Kashgar River, S [804] Alintu River, etc. From 100 poods of ore, two to three zolot- [433] niks of gold are obtained (one pood : 16.38 kg. and one zolotnik: ninety-sixth part of a former Russian pound). One lode mine is said to have 1.6 ounces a ton. Placer gold is also found in Chinghai. Gold has been exploited systematically in both primitive and modern ways. Where water is available, gold is obtained by washing; where water is not available, by sifting the dirt in wind. The yearly gold output of the province is said to total 100,000 ounces. Gold mining operation in the Altai mountains has been on the increase since 1917 when some 10,000 miners extracted gold valued at over 60,000 taels. In 1942 S [439] thousands of mines were said to be operating in the district though most of the gold mined is reported to have gone to Soviet Russia. It is claimed that in the Altai Hou-kou field, a two and a half pound gold nugget was mined. Cherchen (Chieh-mo) and Keriya (Yü-tien) are the richest gold deposits of southern Sinkiang. It is said that gold is so plentiful in Sin-kiang that all Moslem families have their own caches hidden N away. Gold is panned at irregular intervals from the Hsi-ning • 316 and Ta-tung rivers and their tributaries in Kansu province. (See Table IX.)

S 135 c. Silver and Lead: Lead is most extensively distributed in Sinkiang; it is next only to copper in its wide spread.

Silver-lead ore is located in Burlutugai, near the Sairam Lake north of Kucheng and some other places. Lead content S [316] in the ore is up to thirty percent. Mining is carried on very primitively. Lead mining has been carried on at Wu-shih, Yenki, Wusu, Paicheng, and Kashih. At present, only the deposits at the last two places are being worked. Output is very low because of the backward working methods. Silver is much in evidence at Khotan and Karashar.

d. Aluminum and Bauxite

Rich aluminous ore deposits are located in the north of Kucha near Baldir, also in the vicinity of Yu-tien (Keriya) and some other places. In addition, bauxite from which aluminum is extracted, has been found at Ho-feng (Hishih-Tologai) in Sinkiang.

N 135 4. Non-metallic Minerals:

The important non-metallic minerals of Northwest China are salt and gypsum as well as jade and other precious stones.

a. Salt and gypsum.

Ninghsia of Kansu, Chinghai and Sinkiang are extraordinarily rich in salt. The numerous lakes and dried up lake basins provide the basic sodium salt. In eastern Alashan of former Ninghsia province, the Kilantai and the Charatai Dagasu are the most

N S 135 C. Minerals of Secondary Importance.

Many other minerals, both metallic and non-metallic, have been discovered in the Northwest, particularly in Sinkiang. Among the metallic ones are antimony, zinc, tin, mercury, pyrite, etc. Among the non-metals are magnesite, graphite, sulfur, arsenic, nitrate, asbestos, alum, asphalt, ozocerite, marble, limestone for cement making, etc. N S 316 Since mining operations have not yet begun in most cases, it is impossible to predict whether these will prove to be worthwhile, with the exception of magnesite and limestone for cement making.

N 135 1. Magnesite and Cement making:

Large deposits of magnesite are found at Tzu-hu county (38.50 by 105.32) of former Ninghsia province, with a reserve estimated at 38,000,000 tons. A modern cement plant is N 339 being built in Kansu province. The cement plant will be the first of its kind in thisprovince, and it will be able to meet local demands for cement. Housing for the workers, an extension railway line and a long distance telephone linking up the site were completed at the end of 1954. (FBIS. No. 25, Feb. 4, 1955).

S 316 2. Pyrite and Sulfur

Production of sulfur is reported in the vicinity of Khotan, N Sinkiang. A pyrite deposit is also reported in the Tsai-ku 135 area of Shensi province at the junction of the districts of P'u-cheng, Pai'shui, and Cheng-cheng (or about 35.03 by 109.33). The field is 3.5 miles square, extending on both sides of the Lo-ho River, with veins one to two feet thick. Reserves were given as 4,000,000 tons with a sulfur content probably reaching fifty-three percent, making it the best in the world. (Ref. Industrial Monthly, June 1, 1944, Sian). This may be the same as the Han-chiao-ho field. As China turns to industrialization, the demand for sulfur and sulfuric acid will increase.

3. Asphalt and Ozocerite

In the region of Lake Ayar, large deposits of asphalt and ozocerite are found, but so far they have not been worked.

4. Graphite

Graphite is found at Mei-hsien (34.18 by 107.43) in Shensi province.

III. Population

S N 131 161 A. Introduction

The Northwest Region covers the provinces of Shensi, Kansu (including Ninghsia), Chinghai, and the newly established Sinkiang Uighur Autonomous Region in the former Sinkiang Province. Sinkiang alone is larger in area than France, Germany, and

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TABLE IV. China's Northwest:Coal Reserve Distribution by Provinces.[1]
(Reserve in million metric tons and production in tons)

Province	Anthracite	Bituminous	Total	Production(1955)
Shensi	750	71,200	71,950	650,000
Kansu	59	997	1,656[3]	110,000 (240,000 in 1947)
Ninghsia(now belongs to Kansu)	173	284	457	140,000
Chinghai	240	584	824	40,000
Sinkiang		31,980	31,980[2]	180,000

1. Mining Report, 1945, Chinese Geological Survey, cited by Nelson Dickerman:Natural resources of China, Foreign Minerals Survey, II, No. 7, (1948) Washington D. C. U.S.Bureau of Mines and also by George B. Cressey: China's 500 Million, 1955.

2 Present coal reserve of Sinkiang is estimated at 35,040 million metric tons.

3. A new discovery of 32 million metric tons of coal in 3arly 1955 should be added to Kansu's total reserve.

TABLE V. Iron Deposits in Sinkiang Province*

Locale	Deposit	Comment
Aksu	Ko-kan-chia	two deposits not of highest quality
	Tieh-pen-erh	" " " " " "
	Ko-la-pu-la-ko	
Ching-chi	Meng-ko-tu-ling	
Fu-yüan	Shui-hsi-kou	seven furnaces installed with 600 catties pig iron capacity
Sui-ting (Ili)	So-erh-ko-ling	
Pai-cheng	Ming-pu-la-kou mtn.	mining area of each said to be less than a mile square
	T'a-erh-chi mtns.	
	Ya-se-la-min mts	
	Neng-li-ha-ta mtn	
	K'o-shih-ko-ko-pa-shih mtn.	

1: Washington S-4 (no date) 1956 AFI3 Northwest China AFI3 ● Sinkiang All

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TABLE V. (Continued)

Locale	Deposit	Comment
Ta-cheng(Chuguchak)	K'o-la-ta-fu-pan to Ch'erh Shan	vein 130 miles long largest in province
T'a-pan-cheng	unnamed	
Yengi Hissar	I-Ko-jih-ya-yen mtn	
	A-ha-mai-ti mtn.	

* Noris, Martin R.: Gateway to Asia, Chap. IX, pp. 113-14.

TABLE VI. Distribution of Iron Ore Reserves of N. W. China by Provinces*
(Reserve in 1000 metric tons, and production in metric tons)

Province	Proved	Estimated	Total	Percent	Production
Shensi	4,847	6,000	10,847	0.50	1,800
Kansu	2,196	310	2,486	0.10	24,000
Ninghsia	5,079	2,500	7,579	0.35	
Chinghai		5,000	5,000	0.23	
Sinkiang	47,537	1,200	48,737	2.23	

*PAI, CC: General Statement on the Mining Industry. Geological Survey of China, special Report, No. 7, Dec., 1945.

N.B. 1. The total iron ore reserve of Shensi has been raised from 0.5% to 2.3% of the nation's total. That would give it an approximate total of 50,000,000 metric tons.

2. The total iron ore reserve of Kansu has been raised to 12,600,000 metric tons.

1: Washington S-4 (no date) 1956 AF13 Northwest China AF13 ● Sinkiang All

5. The excavation of a new coal shaft near Sian started on August 24, 1955, and is expected to be completed in 1958. It will become part of the Tungchwan coal mines.

2. Kansu.

The most important industrial project in Kansu is perhaps the Yümen Oil Field. Since the Communists took over, extensive reconstruction work has been carried out in this major oil center of China with the help of experts from the Soviet Union, Czechoslovakia, Rumania and East Germany. The Communists boasted that production has increased many fold. If the index of production in 1950 was 100, that in 1951 was 140, and 1954 was 430. In 1955, they planned to produce thirty percent more crude oil than in 1954, and capital investment allocated for the sinking of new wells was twenty-five percent more than in 1954. Latest record of drilling is 234.3 meters in one day, and products include petroleum, kerosene, lubricating oil, diesel oils, tar and paraffin wax. The total output has never been revealed, but it is known that more than five thousand workers are employed.

The Communists have also paid attention to the development of industrial production in Kansu in general. In 1955, twenty-one state-owned or semi-state-owned factories and mines were built or renovated, and all of them are in operation. The more important ones are as follows: (1) a power plant in Lanchou, which increased the supply of electric power by fifty percent; (2) six oil-extracting plants in Kuting and Wuwei, which, when fully completed, will increase the production of vegetable oil in Kansu nearly two hundred percent; and (3) five small coal mines, which increased the coal production by 88.2 percent over 1954.

It was reported on April 4, 1953, that one of the country's largest copper deposits was found in Kansu, the Pai-yin-ch'ang copper mine, which they planned to develop under the first Five Year Plan as one of the major industrial projects in that area. There is also a report that a refinery has been built in Lanchou. But details on these developments are lacking.

There are comparatively few industrial activities in Chinghai. However, with the development of the Chinghai-Tibet highway, the Communists are hopeful that rich oil and coal deposits may be found in the Tsaidam Basin. Tsaidam is one of the country's major areas scheduled for oil-prospecting in 1955, and drilling has already been started there. Besides, mining of anthracite coal has begun in an undisclosed location in Chinghai, which was discovered by the builders of the Chinghai-Tibet highway in August 1953. Truck loads of the coal are now going regularly to Lhasa and other points along the new highway.

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

CHAPTER VI

FROM YENAN AND YENCH'ANG THROUGH THE MOUNTAINS OF EASTERN SHENSI BACK TO HSIAN FU

Yenan—American attempt to exploit the oil deposits of Northern Shensi—Yench'ang—Yich'uan—Brigands and soldiers in Northern Shensi—Han-ch'eng—How to travel in comfort—Hoyang—Ch'engch'eng—P'uch'eng—Fup'ing—Sanyuan—Baptist Mission—Cotton cultivation—Back in Hsian.

YENAN FU, now known as Fushih Hsien, a second class district city, is a large place in area as cities in Northern Shensi go, but is nowadays extremely poor and dilapidated as the result of the constant depredations of brigands in the neighbourhood, most of the shops in the main street being deserted. It is built in the narrow valley of the Yen Shui, which it completely fills at this point, and like Fu Chou it has guarded this passage into China against the inroads of the Tartar hordes from the North for thousands of years. On the hill side opposite are some remarkable cave temples of great antiquity, one of them containing innumerable (said to be ten thousand) little figures of Buddha carved out of the sandstone rock. The neighbourhood appears desperately poor and the crops very backward, the little wheat we saw being still green and barely in ear during the first half of June, though the elevation is only about 3000 feet. Northern Shensi and N.E. Kansu appear to be drying up and turning into desert, perhaps owing to the existence of a little-known range of mountains in Shansi, just east of the Yellow River, which, rising in places to a height of over 10,000 feet, must act as a barrier against the moisture-laden winds from the coast. Coal and iron are said to be abundant in the neighbourhood, but lack of means of communication renders them useless except for local consumption. Petroleum is also found in Northern Shensi, and the attempts to exploit these oil deposits have been, apart from rebellions, revolutions, and brigandage the most important events of recent years in this region.

In the past mineral oil used to leak out of the ground

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

135 316 just outside the South Gate of the little city of Yench'ang Hsien, two marches east of Yenan, and about 1906 two wells were sunk on the spot with the assistance of Japanese engineers and Japanese machinery.

Some seven years later the Standard Oil Company of New York conceived the idea of exploiting the supposed oil deposits of North China and negotiated a co-operative agreement with the Chinese Government, which was signed in February 1914, to the following effect.

316 471 The Standard Oil Company was to send experts to examine the supposed oil fields in Northern Shensi and Northern Chihli, the expenses of the survey being borne jointly by the Company and the Chinese Government. If the reports of these experts proved favourable, a Sino-American Company was to be formed, which should begin operations within six months of the completion of the survey. Capitalisation of the Company to be 55 per cent. Standard Oil, and 37½ per cent. Chinese Government (the latter being presented with their shares by the Company in exchange for the concession); and 7½ per cent. optional for the Chinese Government to purchase at par. Any increase in capital to be on the same terms, and the management to be Sino-American in the same proportion. The Chinese Government undertook that the exploitation of the oil fields named should be given exclusively to the Standard Oil Company, and that no concession whatsoever for oil-bearing properties in China should be given to any other foreigner until the results of the Company's operations should be apparent to the Chinese Government and the Standard Oil Company, which period should not exceed one year from the date of signing the contract. The agreement to last for sixty years, during which time the Chinese Government would not allow any other foreigners to produce oil in the districts named. In the event of the districts in question (apparently Yenan and Yench'ang in Shensi and Jehol in Chihli) proving worthless, any other districts in Shensi and Chihli to be substituted therefore. Concessions to be granted for the necessary railways and pipe-lines. The Chinese Government to arrange matters with the landowners. The acceptance of the terms of the agreement by the Standard Oil Company to be entirely dependent on the result of the examination by experts.

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

The above is taken from the newspapers published at the time and may or may not be correct. The remaining facts regarding the history of the enterprise are given from conversations with local Chinese on the subject, and also may or may not accurately represent what occurred.

Anyone acquainted with the vastness of the trade in petroleum, imported from the East Indies by a British Company and from the United States by an American Company, which has come into existence of recent years in China, and the remarkable manner in which this oil penetrates to all but the most distant portions of the country in spite of transport difficulties and likin exactions, will realise what a magnificent proposition this agreement would have been for the Standard Oil Company had the enterprise succeeded; but it is also obvious that it would have been equally of enormous advantage and profit to the Chinese Government, since without foreign assistance the Chinese are at present as incapable of developing such a proposition as they are of building a railway to the moon.

An inspection of the Jehol oilfields in Northern Chihli proved them worthless, but the report of the two geologists sent to Shensi appears to have been favourable, and a careful survey was then made of the whole of the supposed oilfield. A large staff of geologists, engineers, and drillers was subsequently imported, together with quantities of bulky drilling machinery. The transport of the latter from railhead in Honan through the wilds of Northern Shensi to Yenan and Yench'ang entailed difficulties which seemed insuperable, but was nevertheless successfully accomplished by means of American energy, ability, and driving power. When we passed through Central Shensi on our way to Kansu two years previously, the transport of this machinery, which was just then being undertaken, and the adventures which befell it *en route*, seemed the sole topic of conversation and the only subject of interest in the province. We now saw portions of the same huge pieces of machinery lying apparently useless and abandoned in these wild and inaccessible regions.

During 1915 wells were sunk near Yenan and Yench'ang, and also apparently in Ansai, Yichün and Chungpu districts in accordance with the hopes held out by the survey; but

Z: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

316 no oil was found anywhere except at Yench'ang alongside
471 of the original Japanese well.

Finally in the summer of 1916 work was stopped, the Americans withdrew, and the enterprise was apparently abandoned, the bulky machinery being left behind. Apart from the absence of oil, there must have been many difficulties to contend with in connection with the brigandage and increasing chaos in that region.

The wells have now been filled in, and scarcely a trace of the Americans remains, except for the derelict machinery and the good reputation the surveyors and geologists left behind them amongst the natives, who speak of their departure with great regret and look forward to their ultimate return.

The failure of the enterprise was a bitter disappointment to the local Chinese, for whom the two years were a golden age and who had conjured up visions of railways, roads and pipe-lines, and an era of booming prosperity. Instead of which Northern Shensi now continues as of old to produce little but sand and brigands.

The two original Japanese wells continue to produce oil, and the concern, under official management, flourishes in a small way. Their output is limited by their facilities for refining and transporting the oil, and only one well is therefore usually at work. The oil is sold in the neighbourhood and also across the Yellow River in Shansi, where the people
[492] are more prosperous. Transport is by pack mule over the roughest of mountain trails, and the expense of carriage prevents its penetrating any great distance. It was of course owing to the inaccessibility of the region that it was necessary to find oil in really large quantities to make the installation of a pipe-line, say to the Yangtzu, worth the enormous expense entailed.

487 From Yenan we proposed proceeding east to Yench'ang
133 and to work our way thence somehow or other back to Hsian through Eastern Shensi. Of course everyone said there was no road in that direction, and we knew that the country just west of the Yellow River was likely to prove very rough and poor. But we felt confident that we should as usual always find trails of some kind from one district city to another. As events turned out we found a trail,

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

which, though very arduous and passing through desperately poor mountainous country just inland from the Yellow River, had apparently once been quite an important route. From Yenan to Hsian by this route *via* Yich'uan and Hanch'eng was a distance of about 1030 li, and took us more than two weeks' hard travelling.

From Yenan to Yench'ang is two days' march, 80 and 60 li respectively. The first stage lies down the valley of the Yen Shui between low hills of loess to the village of Kanku Yi. Ten li out one of the oil wells drilled by the Americans in 1916 is passed in the mouth of a small gorge; it has now been filled in. There are several cave villages on the road, the largest being Yaotientzu 50 li out, where there are inns. Kanku Yi, as its name implies, is the ruin of an old fortified posting stage (*Yi*) such as are common on the main roads of Kansu; here the main trail to the north of the province turns N.E. to Yench'uan and Suitê, while the Yench'ang track continues down the valley to the east.

Twenty-five li from Kanku Yi, at the hamlet of Heichia P'o, the river turns south, and the trail strikes up a ravine to the east to gain the top of the loess plateau some 500 feet above the valley, runs across the level upland for a few li, and then drops steeply into another ravine, which is followed for 20 li till it debouches again into the valley of the Yen Shui at Yench'ang Hsien.

Yench'ang lies in the narrow valley of the Yen Shui, right on the river bank, in the mouth of a tributary ravine. The presence of the petroleum is very apparent from the smell which pervades the whole place, and as we were quartered and entertained on the premises of the oil concern and within a few yards of the principal well, the penetrating smell of mineral oil never seemed to leave us for a moment from the time of our arrival till that of our departure. The two wells lie just outside the city wall to the west; the principal one was pouring forth a steady stream of oil at the time of our visit and apparently never ceases doing so. The city itself is the usual little third class district town of Northern Shensi, but it is less dilapidated than most of its neighbours and the walls are in better repair. This is owing to its not having been sacked by brigands during recent years, for which immunity from the prevailing evil credit

(is also, it seems, due to the beneficent oil.

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CHAPTER IX

FROM LANCHOU FU SOUTH TO CH'INCHOU AND THENCE WEST TO T'AOCHOU ON THE KOKONOR BORDER

Shani—Titao—Weiyuan—Kungch'ang—Ningyuan—Fuchiang—Ch'inchou—Schools, government and missionary—Li Hsien—Western end of Ch'inling Shan—Profusion of pheasants—Grass plateau—Modern maps of China—Min Chou—T'ao river valley—New T'aochou—Mahomedans on Kokonor border—Choni—Old T'aochou—Tibetan trade—The Min Shan—Mission work amongst Tibetans—Pneumonic plague.

WE finally left Lanchou on June 9 for Ch'inchou, Minchou, and T'aochou. The road runs due south, ascending a narrow stony valley, for 40 li to reach the village of Akan Chen, picturesquely situated in a wooded gorge. Most of the coal consumed in Lanchou comes from this neighbourhood, and the manufacture of pottery seems to be quite a local industry. We passed the night here, though the village was hard put to it to accommodate our moderate-sized party. On the following day the road ascends through a wooded ravine where pheasants are numerous for some 15 li to the top of the pass, and then descends for three hours' march through a barren rocky gorge to the hamlet of Chungpu, which is an alternative halting-place to Akan for breaking the 120 li from Lanchou to Shani into two stages. From here the road threads its way through barren hills of sandy loess for about 35 li to Shani, a wretched walled village recently promoted to the rank of district city under the new name of T'aosha Hsien. It is suitably named for the surroundings are almost desert, which is characteristic of the T'ao valley from here down to its junction with the Yellow River, and form a curious contrast to the thickly wooded slopes round Akan Chen.

From Shani to Titao Chou is a march of 90 li up the T'ao River valley, which is here about a mile broad and converted by irrigation from a desert into a market garden. Numerous villages are passed, the largest being Hsintientzu and Hsink'ai P'u, 30 and 50 li out. Titao Chou, now Titao

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

accompanied us that in crossing it we passed again from the Kokonor territory into Kansu.

From the pass the track drops steeply into a rough stony ravine, the stream in which is followed in a south-easterly direction for the remaining 70 li to Yungan Ch'eng. For the first half of the way the track is very bad, lying down the bed of a stream which is apt to rise in wet weather and render the road impassable; further on the going improves, the gorge opening out on to a flat grassy valley, and the last hour's march is over prairie, spoilt for riding, however, by the countless holes of a small rat-like rodent; in places the ground is alive with these little animals, dodging in and out of their holes like miniature marmots. The bed of the stream flowing down from the pass is apparently rich in gold, and Mahomedan gold washers were at work at various points when we passed. They live in tiny tents and appear to pass a very hard life for small returns. The industry is under the patronage of the leading Mahomedan Generals. We followed the washing in several spots and always saw a few grains of gold dust produced; nuggets are, we were told, occasionally found. We had descended this stream almost from its source, so that in this case the gold-bearing rocks from which the gold has been washed cannot be far off. Very large profits can be made in ordinary times by buying this gold on the Kokonor and selling it in Shanghai.

Just before reaching Yungan we passed some Mongol tents, identical in appearance with the felt yurts to be seen in the grass country north of Kalgan, and it seemed strange to come across these people here, whom one associates with summer trips to the north of Peking. The Kokonor territory is the meeting-point of the Tibetan and Mongol races, and here, as elsewhere, the black rectangular tents of the former may be seen almost side by side with the round grey tents of the latter. It appears that the Mongols, who originally occupied the country far to the south, are gradually retreating northwards before the encroachments of the more virile Tibetans. Unlike the Tibetans, who are in these parts all robbers by nature, the Mongols are peaceful and inoffensive herdsmen, who give the Chinese authorities no trouble. They are organized into Banners under their own Princes,

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

of the aerial origin of the loess is the absence in it of fossil shells of water animals; but so far as I know such fossils are equally absent in re-deposited loess obviously laid down by water. If the great rivers of South America have deposited the soils of the Argentine pampas, there seems little reason to doubt that the Yellow River has done the same for North China. The desert mountains round the lower end of the Hsining River valley are rich in copper, and before the Revolution a mine was being worked in the neighbourhood with the assistance of a foreign engineer and foreign machinery; it appears to have suffered the fate common to all Chinese official enterprises of this nature, but its failure was not, so far as I am aware, due to any deficiency in the quality or quantity of the ore.

From Hotsuitzŭ the road continues down the valley which debouches on to the Yellow River 55 li further on. The latter can be crossed by a ferry here, but the path usually followed ascends through a desolate defile past a number of salt pans to a loess plateau, whence it descends to a ferry. The Yellow River is here some 200 yards wide and is crossed by means of a large ferry-boat taking animals. A further hour's march down the Yellow River valley through irrigated fields brings one to the township of Hsin Ch'eng, the end of a stage of 75 li.

From Hsin Ch'eng to Lanchou Fu is a march of 70 li by a good road down the valley through fertile irrigated fields backed by desert hills. This stage can be accomplished rapidly and easily by taking passage on one of the small skin rafts, numbers of which descend the river in the month of August laden with water melons for the Lanchou market. These rafts, composed of a light framework resting on a few inflated skins, are usually small enough and light enough to be carried back up stream on the shoulders of their owners. We were fortunate in striking the valleys above Lanchou during the height of the melon season. The dry heat in these arid valleys at that time of the year was at times truly terrific, and the melons, of which we consumed large quantities on the road, were delicious. The best melons in China are grown in this neighbourhood. We found four varieties; the *tsui kua* and the *hsiang kua*, small and very fragrant sweet melons; the *hsi kua*, the ordinary

2: Teichman G-5 (1919) 1921 AF13 Northwest China AF13

without a scrap of vegetation. A little gold-washing is carried on in this neighbourhood. There were numerous rapids, over which our rafts rode triumphantly. Navigation, carried out by sweeps at the bow and stern, consists in avoiding the rocks and sand-banks and keeping the raft clear of the cliffs where the river swirls round a corner. Unless engaged in a particularly fierce rapid but little attention is paid to these cliffs, and on several occasions my raft crashed against the perpendicular wall of rock in a way which would have smashed a boat to pieces, but without doing any damage beyond shifting a few telegraph poles. In the bad rapids, however, where the water is heaped up into the centre of the river in a tongue like the big rapids on the Upper Yangtzu, great care is taken, since the pace is so tremendous that the raft could scarcely survive the impact with a large rock. Towards evening we noticed large numbers of goral (or wild goat of some kind) in these gorges, clambering about the precipitous cliffs in tens and twenties; one could have shot any number from the raft, but it would have been impossible to stop and retrieve them.

These gorges last for six or seven hours, until finally a picturesque temple on a bluff overlooking the river marks the exit from the gorge and the approach to Wufang Ssu, a boating village in a small plain on the left bank of the river. Sheep are grazed extensively on the semi-desert hills in the neighbourhood, and wool is collected here and shipped down river for the Tientsin trade.

From Wufang Ssu the river flows east and north-east again. Two hours further on another long gloomy gorge, with many rapids and whirlpools, is entered, the passage through which takes seven to eight hours; coal is exposed in the cliffs in places. At length the mountain walls give way to huge sand-hills and then to an irrigated alluvial plain, and two hours further on Chungwei Hsien is reached. Chungwei, lying inland about five li from the left bank of the river, is quite an important town, the centre of a rich fertile region where the desert is irrigated by canals from the Yellow River, and also a market for the wool trade.

Below Chungwei the Yellow River becomes a broad stream obstructed by sand-banks and shallows, flowing through an immense plain dotted with low hills and irrigated

3:Cable & French M-5 (1926) 1927
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first time, foreign onions, which were large and of a very good quality. Homespun cotton materials were also to be bought, as this district,[1] unlike many others, produces a very fair cotton crop, which the men spin, and weave by hand on primitive looms. Kaotai also supplies a very superior kind of anthracite, which when burnt in a brazier is practically smokeless, giving off intense heat for hours; its fumes, however, are unpleasant to those unaccustomed to them.

From Kaotai there are two roads to Suchow, used alternately according to the season of the year; we took on this occasion the upper one following the foot of the Richthofen Range, where, between the oases, tracts of coarse gritty sand are found overlaid with small black pebbles, which presented an excellent and firm surface for our carts.

The first stage in this direction brought us to the ruined city of Camel-Town, an ancient settlement, dating from the time when North-West Kansu was under the sway of great Mongolian chiefs. Tradition has it that this was the centre from which King To-lo, probably a ruler during the time of the Mongol supremacy which terminated about the middle of the fourteenth century, controlled his tribe.

This was the first of the large buried cities we had yet seen, and interested us greatly. The massive clay walls of the enclosure still stood, showing the extended area once inhabited, but now the only building not completely ruined was a temple, with a lean-to of one room, in which lived an old man and his wife. It was an isolated spot, bearing a bad name for brigandage, and no carter spends the night there willingly. We had arrived late in the afternoon, having started early in the morning, so we had declared our fixed determination to get a night's rest here at any price. While

[1] [Kaotai--Analyst]

shops there, but must leave the central part of the city before darkness sets in. 563

There had been a great deal of progress since my first visit to the city in the spring of 1904. In the summer of 1905 the old, very reactionary viceroy was replaced by one who had been in Berlin and Petersburg. This man had sent Splingaert, the interpreter of Baron von Richthofen, known to every Sinologist, /153/ in order to find European engineers who should open up a new era for the province of Kansu. He wanted to re-open the cloth factory, and build sugar and champagne factories. The very good coal mines which lay a short day's journey south of the city were to be made more accessible by means of a small railway. But above all, a university and technical school were to be opened, and, for strategic purposes, an iron bridge built across the Hwang Ho. 651 185 [34]

That was the program which everyone was discussing in this city of no newspapers, but there were for the most part unbelievably exaggerated and distorted rumors about it. Because a Chinese province is an independent unit, the governor-general was obliged to raise a large part of the funds which were necessary before he could carry out his program. He therefore wanted to open up another mint in which special Kansu money was to be coined and the silver and gold for this he wanted to get from the provincial government. He therefore needed European foundry experts; prospects of mining concessions for Europeans no longer existed here. But everyone knew that there was gold as well as silver in Kansu; for Kansu, like Szechwan, borders on Tibet and since ancient times gold has been washed in the rivers on the border. [436] [316]

It was in connection with this very program that I came into frequent contact with the higher officials during my three-weeks' stay in Lanchow fu. I was often obliged to attend Chinese dinners at which the Chinese are so fond of testing the drinking capacity of a foreigner. Their drinking games are particularly dangerous, being a sort of morra in which the loser must empty cups the size of a thimble, filled with warmed whiskey. For linguistic reasons alone it is very difficult for foreigners to win. But I found that the cultivated Chinese and Manchu begins to warm up to a foreigner when the latter, through this sort of thing, comes closer to him as a human being. Thus I learned the game "dry" from one of my servants and in the course of time I had many a "Chinese queue" on my conscience. I was amazed to see how brief the emotional flare-ups of these people were; or could they, perhaps, even if they had had too much of a 574 524 574

133 part of this mighty chain which I was now crossing with my caravan had been indicated on our maps as the Siansibeî chain since the time of General Prschewalski's journeys. Up to now it was not clear whether this chain discovered by Prschewalski had any connection with the Semenov Mountains. Now as a matter of fact, in the eyes of the natives, Siansibeî is only a pass which I myself crossed on the following day and which I discovered to be 3,800 meters high. The mountain range around the pass does not have any particular name for the natives, they give names to peaks and passes only. Thus, it is possible in Tibet to proceed after the fashion of recent Russian explorers and introduce foreign, if possible proper names for the individual ranges. These foreign names have the advantage of showing immediately that they are not local designations, but that they have been introduced by individual travelers in their explorations and in their effort to untangle the knotty problem of Tibetan Mountains. If, as our knowledge grows, we realize that the demarcation of individual mountains has been wrong, we have found that European designations of mountain ranges are easier to change than ostensibly local names.

487 485 712 Up on the top of the Siansibeî Pass we came upon the large caravan road that leads from Bayan Nor and Kabatalen across the tala to the south and along which - as I now noticed for the first time - there stand loam fortresses every 25 - 30 kilometers, as a protection for travelers against nocturnal attacks. We continued to follow this road and set up Camp 17 within such a loam fortress. The loam walls had been erected probably half a century before by Chinese soldiers. Now they stood empty and partly in ruins but within them we felt infinitely relaxed and safe. I slept like a god between the three walls that still stood upright, in spite of snow and hail which were accompanied by an icy westwind.

133 316 The descent south from the Siansibeî Pass is extremely gentle. Already at an altitude of 3,600 meters one leaves the Semenov Mountain range and thereupon has a wide view across a new steppe which slopes toward the southeast, and once more looks down on a longitudinal valley covered with rubble. A few brooks have cut a bed 200 meters deep into this rubble, and far in the southeast a long, dark crevice with vertical walls stood out sharply against the pale yellow gleam of the steppe. "In that flows the Hwang Ho," my H'an said immediately. He had formerly often come through this region in search of gold and had even, on his way home, gone down the Hwang Ho on a raft. The river flows so deep down that one can see its waters only when one steps close to the edge of the fissure.

Formerly as many as 2,000 gold washers traveled to the Gorgi Ravines summer after summer and into the mountains which bordered the southern part of the steppe that lay before us. Most of these gold washers were, like my H'an, people from the so-called "Small Society" (Hsian /308/ kiao), that is, Mohammedans. Meanwhile thousands of them have perished, losing their lives in the Mohammedan rebellion. But at that time, when the gold-washing regions were visited in the greatest numbers - around the 1870s - the government kept ten soldiers in each of the loam fortresses on the road, for their protection, and from each gold washer the mandarins collected two mace per season for licenses. Hundreds of small employers instigated these expeditions and came here with people from their village and their neighborhood. The region is considered one of the richest in gold in the entire Hsining district. But one day - it must have been in the year 1889 - Ngolok-Tibetans came riding up in great numbers from the south, fell upon the unarmed gold washers, took their food supplies which they had laboriously dragged up from their home in the Hsining Valley, and thus forced them to beat a hasty retreat along with the Chinese soldiers. Since that time the soldiers have never again taken up their posts here and only small bands of particularly audacious gold seekers dare to work the Gorgi Ravines, and for this they pay high taxes to the Tibetan tribes living in the vicinity.

At the time of my visit the local landowners, two tribes who have their pastures on the southern edge of the steppe and at the mouth of the Gorgi ravines - in the northern part of the steppe there are few good pastures - were bitter enemies. Disputes over a matter of inheritance had resulted in wars that had been going on for years and cost a great deal of blood-shed. A young Tibetan who had been adopted by a childless couple, had lost his step-father in a smallpox epidemic when he was still a boy. His step-mother took another man into her tent soon after the death of her husband, and when the step-mother died this man refused to give up the property. Meanwhile the young man had reached the age of 20, and when he had in vain brought suit before the chieftain, he resorted to self-defense, attacked the man's tent with the help of some of his contemporaries and some blood relations, drove away the man's herds and took possession of the tent and its contents. Since that time the tribe has been divided into two factions. The two hostile territories are separated by the Da ho ba (Chinese) or the Hongan Chu (Tibetan), a torrential mountain brook which flows through the steppe in a deep channel. Most of the battles took place in its narrow ravine. On the steep slope along the road we saw the

about the camels, nor had they accomplished anything in the Ngolok-Horkurma affair. However, in spite of this, both interpreters were well-satisfied with their dealings and now wanted to travel back to Dankar as quickly as possible. They rode "ula," that is, the natives along the way had to provide horses and guides for them from one tribe to another. They counted on being in Dankar in six days in this fashion. Schü had received a present of a good, young horse from the Ts'ien hu; he sold it to me for an acceptable sum and so I could join the interpreters with two of my servants. I took only a few provisions and my notebooks and map sketches with me; the rest of the baggage and the remaining servants were to wait for the Wang ka. Just as we were riding off, Tsch'eng and Me whom I had, according to their wish, paid and discharged the week before, came to me weeping and complained that the two interpreters had taken 10 taels away from them because they were carrying on business in Tibet without a license. Tsch'eng had in the meantime collected money from the Nian in payment of old debts for boots. There was of course /77/ nothing for me to do but take on their fine. In Dulan se the two interpreters had also demanded a male donkey from a pen-sa (borax) digger who had come from Kurluk and also had no passport. (1) The

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1. From the region of the Kurluk- (Kurlik-) Mongols, five days' journey north of the Kurlik Nor, 8,000 Chinese pounds of pen-sa, unpurified borax (tala in Tibetan and Mongolian) are annually exported. Again it is principally Dungani who work the borax pits. It is processed in Dankar. In its purified state only about 2,000 catties are left over.

poor devil had nothing else that was worth taking along. Among the rest of the animals that they were dragging along I also discovered an old acquaintance: the horse with spavin, that I had ridden on my way from Dalan Turgan. The person from whom they got that could only be grateful to them. It was a dignified, but strangely assorted cavalcade with which I set out from Dulan se.

133 At first we followed the valley of the Dulan River upward for a few hours, then we crossed a flat pass that was nevertheless 3,615 meters high, over to the Tala depression. The broad, treeless, yellowish green Tala plain stretched endlessly to the east. On the north it was bordered by grassy hills, but on the south there towered a snow-covered wall of mountains with wild, jagged peaks of tremendous size.

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487 Shensi from Kansu. I had come down another level into the lowland, a formation of land which our map had not yet indicated. Down in the province of Shensi I again stood on my familiar Shensi-Ordos clod of earth. Here, too, at Lung tschou, the Chinese have since olden times worked coal pits which yielded good coal. But because the roads are too poor, the coal is sent only for a distance of a two-days' journey, beyond Kien yang hsien.

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[997] My journey continued without stopping, ever deeper into the rich, the beautiful, the new China. In Kien yang hsien I was invited for supper by two gracious Swedish ladies who were doing quiet missionary work all alone here in this outpost. A further day's march brought me into the city of Feng tsiang fu, and the next day saw me in the city of Ki schan hsien; herewith I had reached the big old Szechwan road. Everywhere there were magnificent hotels by the side of the road. Large carts loaded with snowy cotton were heading into the cities. In one day I road through half a dozen chief cities of districts. At Sien yang hsien for the last time we crossed the Wei Ho which at that city is muddy and thick and only 360 meters above sea level. Here the Szechwan road on which I traveled at the end and the cart road to Lanchow fu unite. There are seven large ferries to take care of the heavy traffic during the high waters in summer, while every winter a trestle bridge is built. Round about on the flat hills are old earth mounds which have been the burial places for countless emperors of the old dynasties, those of Hsingan fu, the Tschang ngan of old.

000 /328/ Ever since I had left Lanchow fu I was goaded on by the fear that on account of my detour I might arrive in Hsingan fu later than my carts and chests and that my property might get lost if there was no one to receive it at its place of destination. But now, after much telegraphing back and forth, it turned out that they had not even left Lanchow fu. Again my mind had not worked sufficiently in the manner of the Chinese merchants. It had occurred to some clever individual to use my shipment in order to smuggle a few boxes of water-pipe tobacco through the customs. But it had been done too boldly and so everything, my chests as well as the tobacco chests, were confiscated. Finally Mr. Shields was called in by the draymen to help because he had recommended the hang to me. When he came to the custom station the officials and soldiers were rummaging, amid pouring rain, among the bird skins, butterflies and the various oddities. Without Mr. Shields' help I would again have had to undertake the month-long trek to Lanchow in order to get my belongings.